

## USAMMDA INFORMATION PAPER

### PRODUCT: CARTLEDGE INFUSER

**DESCRIPTION:** The Cartledge Infuser (CI) is intended to allow a physician to normalize a patient's hemodynamic status. The CI is a variable rate infusion pump that allows a physician to replace blood volume at volume rates ranging from 20 ml per hour through 1200 ml per minute. A blood warming system is incorporated into the design and provides optimal blood warming at any flow rate. The CI operates on standard alternating current power, and is capable of battery operation for up to one hour. It weighs approximately 18 pounds, and is 14 inches wide, 8 inches high, and 8 inches deep.

**PROGRAM RELEVANCE to the ARMY:** This product supports both the core mission of the Army and the Army Transformation. Of the Army's core competencies, this product supports "Prompt Response," "Sustained Land Dominance," and "Support Civil Authorities." In any military conflict or civilian disaster, it is an unfortunate fact that there will be casualties requiring rapid transfusion of blood and other lifesaving fluids. The CI is able to warm and rapidly transfuse these fluids, thereby supporting Transformation by providing a critically needed treatment capability to U.S. and allied Forces. In this capacity, the CI is intended to save soldiers' lives and supports Future Operational Capabilities: MD-02-001 Clearing the Battlefield, MD-02-002 Hospitalization, MD-02-003 Medical Force Protection, and MD-02-004 Combat Health Logistics.

### ISSUES/ACTIONS:

- This developmental effort received \$1.5 million in FY03 Congressional funding. These funds will complete the development and testing of the CI, and should be sufficient to allow it to achieve Food and Drug Administration (FDA) clearance.
- A proposal for the FY03 funding has been received.
- A design review meeting with Smisson-Cartledge was held in August 2003

### ADDITIONAL INFORMATION:

**BPL #** 435

**DA PROJECT/TASK:** Trauma Management –  
PE/PROJ 643807/832BV

**MAMP RANK:** Not Ranked

**ARMY ORD:** Not required. This product was  
established by Congressional language.

### SCHEDULE:

Contract Award	3QFY03
Product Review	4QFY03
Prototype Delivery	3QFY04
FDA Submission	4QFY04

**For additional information, contact:** Applied Medical Systems, DSN 343-7582, Comm. 301-619-7582